

TEST LAB

See all our product reviews at which.co.uk/reviews

- 59 DAIRY SPREADS
- 62 STEAM CLEANERS
- 64 SECURITY SOFTWARE
- 68 PRINTERS
- 72 TV BOXES
- 76 TEST LAB BUYER'S GUIDE: PCs, CAMERAS, PHONES



Best Buys for £400 or less

You don't need to spend a colossal sum to get a fantastic washing machine. We've selected four of our cheapest Best Buys, plus other options to fit your needs

You could be forgiven for assuming that the best washing machines sit comfortably at the top end of the price range. But our tests show that you could shell out more than £900 and still end up with one of the worst models we've seen in the Which? test lab.

The Samsung WF1124XAC will set you back an eye-watering £949, but it scored so badly we've named it a Don't Buy. At the other end of the scale, the £330 Zanussi ZWF91283W (76%, shown above) has just been crowned our cheapest Best Buy.

You can pay anything from £175 to more than £1,000 for a washing machine, and there's not always a direct link between price and quality. Choose a model at random and you

could spend a lot of money and still end up with a washing machine that fails to lift everyday stains.

Based on the hundreds of washing machines we've tested, we recommend stretching your budget to at least £300 to increase your chances of finding a model you can rely on. In the sub-£400 price bracket there are currently five Best Buys, and you'll find quite a few more if you're willing to stretch the budget to £500.

Don't pay more than you need to

According to our survey of 1,718 Which? members in September 2014, the average member spent around £405 on their last washing machine. The Best Buy machines shown

TESTED BY US, RATED BY YOU

WHICH? tests more than 2,500 products a year. Our reviews are completely impartial – we pay for what we test and don't have any advertisers to keep happy. So we'll tell you exactly what we think of products – from Best Buys to Don't Buys. Your feedback in surveys and customer reviews helps us to rate satisfaction, and focus tests on things that matter to you.

BEST BUY The ultimate accolade. Which? Best Buys are products that have scored consistently well in our lab tests.

WORTH A LOOK These products didn't rate quite as highly as our Best Buys, but they're still solid performers.

GREAT VALUE Best Buys, or other high-scoring products, that are also great value for money.

ENERGY SAVER Products that we've rated as Best Buy or Worth a Look, that also tick an extra box for energy efficiency.

DON'T BUY Avoid at all costs. Don't Buys fared badly in one or more key areas, so we recommend steering clear.

PRICES We give the lowest widely available in-store and online price for products as we went to press. We give a guide price for cars.



above prove that you really can find some top-quality models for less than this.

Making smart choices will save you money and get you the best model for your needs. Below we recommend the best tactics to ensure you get a great-value washing machine.

Shop online Shopping online can save you up to £100 on high street prices, depending on the model.

If the machine you're interested in is available in a store, it's always worth making the trip to look at it. However, once you know what you want, it's a good idea to check for the best price online.

Stick to what you want Don't get caught up in the shiny new program options, which are impressive, but there's not much to be gained from paying

for them if you won't put them to use. Think about what you actually need from your washing machine and limit your search accordingly. A 7kg drum is more than ample for a small family or couple. Likewise, many people stick to the same programs day in and day out, and won't need additional options, such as a steam option or programs specifically for jeans or sportswear.

Use the Which? Price Predictor Many of our online washing machine reviews come with a Price Predictor, which uses historical pricing data to recommend a good time to buy the product. It helps you find out when products are likely to be cheapest, so you can feel more confident that the model you're buying isn't about to drop in price. >

Zanussi ZWF91283W **76%** ONLINE £330

PROS The cheapest Best Buy currently available, this washing machine is fantastic at cleaning clothes, and it's also good at getting plenty of water out of them during the spin cycle. It's particularly cheap for a spacious 9kg-capacity model, and we also found it easy to use.

CONS It's quite power hungry for a washing machine, and its spin is very noisy.

OUR VERDICT A bargain for such an excellent washing machine.

Cheapest store Online only

John Lewis JLWM1413 **73%** STORE AND ONLINE £399

PROS It cleans cottons thoroughly and does a brilliant job on synthetics. It gives clothes a more thorough rinse than the average washer, while the 1,400rpm spin does a phenomenal job of removing water from clothes before drying.

CONS While the spin cycle is brilliant, it's very loud – so it might not be suitable if you need a machine for an open-plan space.

OUR VERDICT A brilliant model for a good price.

Cheapest store John Lewis

Bosch WAQ28461GB **73%** ONLINE £398

PROS The cottons cycle tackles most stains with ease, and the cleaning power of the synthetics cycle is even better. A great spin cycle does a terrific job of wringing water from clothes, and we also found this model is easy to use and load.

CONS No major downsides, but the rinse is no better than average.

OUR VERDICT Great quality for a keen price.

Cheapest store Online only

LG F12B8QDA **72%** STORE AND ONLINE £400

PROS This easy-to-use model does a fantastic job on the 40°C synthetics program and also cleans well on the 40°C cottons program. It removes an impressive amount of water from clothes during the spin cycle, and this machine is better than most at rinsing off excess detergent.

CONS It uses a lot of water and energy, which might bump up your bills a little.

OUR VERDICT Brilliant, but not very efficient.

Cheapest store Currys

Best Buys from £500 to £800



Samsung WF80F5EU4W 80%
STORE AND ONLINE £500

PROS This is currently the highest-scoring machine on test, but it's nowhere near the most expensive. Its cleaning power is phenomenal, and the spin is excellent – so clothes won't take long to dry. To top it off, it's also good at rinsing out excess detergent.

CONS The spin is rather noisy – so don't place it in an open-plan space.

OUR VERDICT Best on test.

Cheapest store Currys



Siemens WM14Y791GB 73%
ONLINE £769

PROS The 40°C cottons cycle lifts a good amount of stains from laundry, and the 40°C synthetics cycle is brilliant. The spin is fantastic at removing water, and this model is one of the easiest to use we've ever tested, with clear controls and easy access to the drum.

CONS No major drawbacks, but the rinse is only average.

OUR VERDICT Pricey, but impressive.

Cheapest store Online only



Bosch WAS32760GB 71%
ONLINE £698

PROS It has a large 9kg-capacity drum and gets through laundry quickly. It's good at cleaning cottons and excellent on synthetics. The spin is terrific at removing water from clothes before drying, and we found loading and unloading easy.

CONS The rinse is poor – it's not great if you have sensitive skin.

OUR VERDICT Great, apart from poor rinsing power.

Cheapest store Online only



John Lewis JLWM1606 71%
STORE AND ONLINE £599

PROS Cottons and synthetic fabrics get a good wash, and the spin cycle is very good at removing water to minimise drying time. It's easy to use, with a door that opens wide for better access to the drum, and controls that are simple to use.

CONS The spin makes a racket, so it might not be ideal for open-plan living.

OUR VERDICT A solid choice.

Cheapest store John Lewis

Small-capacity machines



Hotpoint WMAQF641P 68%
STORE £330 ONLINE £269

PROS A 6kg-capacity machine that's great at cleaning cottons and good with synthetics. The spin is effective at removing water, and we found this model very easy to use.

CONS It's very slow, the rinse is poor, it's wasteful with water and energy, and it's loud.

Hotpoint didn't score very highly in our reliability survey.

OUR VERDICT OK, but some flaws.

Cheapest store Argos



Indesit IWSC5125IECO 66%
STORE AND ONLINE £219

PROS This affordable 5kg machine does a good job of shifting stains from cottons and is even better with synthetics. The spin cycle is good at removing water.

CONS It's tricky to use, slow and uses a lot of energy and water. Indesit was one of the lowest-scoring brands in our reliability survey.

OUR VERDICT Decent, if rather annoying to use.

Cheapest stores Argos, Currys

Large-capacity machines



LG F1495BDSA 75%
STORE AND ONLINE £799

PROS It's phenomenally quick for a massive 12kg-capacity machine and does a top job of cleaning. The spin cycle is brilliant at getting water out of clothes to cut drying time. We also found this model easy to use, with a big drum opening and clear program options.

CONS Its rinsing power is poor, which isn't good for those with sensitive skin.

OUR VERDICT Outstanding, apart from the rinse.

Cheapest store John Lewis



Hotpoint AQ113L297E 67%
ONLINE £368

PROS This huge 11kg-capacity machine is good at cleaning clothes, especially synthetics, and is quick and energy efficient. The spin does a decent job of getting water out of clothes before drying.

CONS Which? members who owned a Hotpoint washing machine didn't vote it a very reliable brand.

OUR VERDICT Good, but the rinse is poor.

Cheapest store Online only

Integrated washing machines



Miele W2819i 73%
STORE £1,359 ONLINE £1,049

PROS This machine thoroughly washes cottons and rinses both cottons and synthetics well. The spin is brilliant at removing water from clothes. This model is quieter than the average washing machine.
CONS Nothing major, but it's no better than average at cleaning synthetics – which is disappointing, considering the eye-watering price.
OUR VERDICT Best integrated model currently on test.
Cheapest store John Lewis



Hotpoint BHWMD742 65%
STORE AND ONLINE £429

PROS This model's cleaning power is impressive – it's superb with cottons and good with synthetic fabrics as well. Its effective spin dry means clothes shouldn't take too long to dry either on the washing line or in the tumble dryer.
CONS It's quite slow, the spin is loud, and Hotpoint didn't do too well in our reliability survey.
OUR VERDICT A decent machine, but not fantastic.
Cheapest store Currys

LAB SECRETS

Our cleaning tests are now tougher than ever

To keep our testing objective and uniform, we attach stained cloths to pieces of fabric to test cleaning power. In 2014, we used close to 3,000 stained cloths during testing. After washing, we use a spectral photometer to measure how much light is reflected from each stain, then calculate how much of it has been removed.

We've found that a five-star washing machine removes around 25–30% more stains than a one-star model on a 40°C cottons cycle. The photographs below illustrate the difference between how five-star and one-star machines tackle tough stains, such as grass and chocolate ice-cream.



The pictures above show the difference between a one-star wash (left) and a five-star wash (right) on grass and chocolate ice-cream stains.

How to choose the right washing machine for you

The right capacity

Choose the right drum capacity for your needs. Drum sizes range between 5kg and 12kg, and a 7–8kg capacity is usually recommended for the average family. A massive drum capacity sounds great, but it tends to increase running costs.

Don't be swayed by spin speed

Spin speeds typically range from between 1,000rpm and 1,600rpm. A faster spin speed often improves the spin dry, but this is not always true – we've found some washing machines with a 1,200rpm spin are better than some 1,600rpm models.

Find a model that's cheap to run

The A+ to A+++ ratings given to washing machines for energy efficiency give an indication of energy use. Our reviews come with the results of our own energy and water use tests, plus our estimate of annual running costs.

Three useful extras to look for

DELAY START lets you set the machine to automatically start up to 24 hours in the future, depending on the model. Alternatively, some models have 'end time' functions, letting you decide when the program finishes. For safety reasons, it's still best to be at home when the washing machine is working.

CHILD LOCKS come in two forms: one disengages the control panel to prevent programs being tampered with while your attention is elsewhere; the other stops the door from closing – so items can't be locked inside.

QUICK WASH programs vary between machines. Some have a full-load quick-wash option, allowing you to wash a full load of lightly soiled clothes in under an hour, but the quickest will let you clean only a few items.

WHICH? MEMBERS' TOP-RATED WASHING MACHINE BRANDS



Based on our September 2014 survey of 2,339 washing machine owners about the brand they own.

Don't Buys to avoid

These four washing machines performed so badly in our tests that we've rated them as Don't Buys

You can't rely on any of these models to shift tough marks and stains from your laundry. The £725 **Neff W5440X1GB** (36%) and the £949 **Samsung WF1124XAC** (37%) earned paltry one-star ratings for both the 40°C cottons and synthetics washes. The **Zanussi ZWG7140P** (£310, 36%) and the **Sandstrom SB14WMW13** (£280, 25%) aren't much better on cleaning.

Cleaning power accounts for 50% of our overall washing machine score. We measure it on the 40°C cottons cycle and the 40°C synthetics cycle, as these are two of the most popular programs among Which? members. However, Don't Buy washing machines don't always score poorly across the board. For instance, both the Samsung WF1124XAC and the Neff

W5440X1GB get through laundry very quickly for their respective capacities, but we don't consider speed to be nearly as important as cleaning quality.

Samsung and Zanussi currently have washing machines that have earned our Best Buy recommendation, which is why it's really important to read our reviews to make sure you get the right model for you.



WASHING MACHINES ON TEST

SPECIFICATION	WHICH? TEST PERFORMANCE														TEST SCORE
	Annual energy cost	Capacity (kg)	Start/End delay	Maximum spin speed (rpm)	Child locks	Quick wash	Cottons wash	Synthetics wash	Rinsing efficiency	Spin dry	Energy use	Noise	Ease of use		
FREESTANDING															
SAMSUNG WF80P5EU4W	£500	£32	8	1,400	✓	P	✓	★★★★	★★★★	★★★★	★★★★	★★	★★	★★	80%
MIELE W5780	£1,029	£27	7	1,400	✓	P	✓	★★★★	★★★★	★★★★	★★★★	★★	★★	★★	79%
ZANUSSI ZWF91283W	£330	£41	9	1,200	✓	P	✓	★★★★	★★★★	★★★★	★★★★	★★	★★	★★★★	76%
LG F14958DSA	£799	£52	12	1,400	✓	P	✓	★★★★	★★★★	★★	★★★★	★★	★★	★★★★	75%
BOSCH WAQ28461GB	£398	£33	8	1,400	✓	P	✓	★★★★	★★★★	★★	★★★★	★★	★★	★★★★	73%
JOHN LEWIS J1WM1413	£399	£32	8	1,400	✓	P	✓	★★★★	★★★★	★★★★	★★★★	★★	★★	★★	73%
SIEMENS WM64Y791GB	£769	£33	8	1,400	✓		✓	★★★★	★★★★	★★	★★★★	★★	★★	★★★★	73%
LG F1288QDA	£400	£35	7	1,200	✓	P	✓	★★★★	★★★★	★★★★	★★★★	★★	★★	★★★★	72%
BOSCH WAS2750GB	£698	£36	9	1,600	✓	P	✓	★★★★	★★★★	★★	★★★★	★★	★★	★★★★	71%
JOHN LEWIS J1WM1606	£599	£38	9	1,600	✓	PD	✓	★★★★	★★★★	★★	★★★★	★★	★★	★★★★	71%
HOTPOINT WMAQF541P	£330	£31	6	1,400	✓	P	✓	★★★★	★★★★	★★	★★★★	★★	★★	★★★★	68%
HOTPOINT AQ13L297E	£368	£31	11	1,200	✓	P	✓	★★★★	★★★★	★★	★★★★	★★★★	★★	★★	67%
INDESIT IWSC51251ECO	£219	£28	5	1,200	✓		✓	★★★★	★★★★	★★	★★★★	★★	★★	★★	66%
CANDY GC4147ZDIS	£280	£28	7	1,400	✓		✓	★★★★	★★★★	★★	★★★★	★★	★★	★★	63%
WHIRLPOOL WWDC 9440	£279	£32	9	1,400	✓	P	✓	★★	★★★★	★★	★★★★	★★	★★	★★	58%
BEKO WMB91442LW	£290	£31	9	1,400	✓	P	✓	★★	*	★★	★★★★	★★★★	★★	★★	44%
SAMSUNG WF1124XAC	£949	£21	12	1,400	✓	P	✓	*	*	★★	★★★★	★★★★	★★	★★	37%
NEFF W5440X1GB	£725	£18	7	1,400	✓		✓	*	*	★★	★★★★	★★★★	★★	★★	36%
ZANUSSI ZWG7140P	£310	£22	6	1,400	✓	D	✓	*	★★	★★★★	★★★★	★★	★★	★★	36%
SANDSTROM SB14WMW13	£280	£19	8	1,400	✓		✓	*	★★★★	*	★★	★★★★	★★	★★	25%
INTEGRATED															
MIELE W12B91	£1,359	£22	6	1,400	✓	P	✓	★★★★	★★	★★★★	★★★★	★★	★★	★★	73%
HOTPOINT RHWM1742	£429	£28	7	1,400	✓		✓	★★★★	★★★★	★★	★★★★	★★	★★	★★	65%
AE616147JBI	£549	£25	7	1,400	✓	PD	✓	★★	★★★★	★★★★	★★★★	★★	★★	★★	64%
INDESIT WME127	£309	£30	7	1,200	✓		✓	★★★★	★★★★	★★	★★★★	★★	★★	★★	56%

USING THE TABLE

Best Buys are highlighted in red and Don't Buys in grey. The more stars the better.

SPECIFICATION Price See p65

Annual energy cost Measures the cost of running a cotton program

four times a week, for a year.
Child locks P = Control panel, D = Door, PD = Control panel and door

PERFORMANCE Cottons/Synthetics wash How well the machine cleans cottons and synthetics during a 40°C wash.

Rinsing efficiency How much excess detergent the washing machine removes from the laundry. Does not include any extra-rinse settings. **Spin dry** How dry the clothes are after the final spin.

A five-star machine can remove more than half of the water from clothes during the spin cycle. **Energy use** Energy used per kg of washing on a 40°C cotton wash. **Noise** The more stars, the quieter the machine.

SCORE ignores price. Based on:
Cleaning performance 50%
Rinsing 15%
Spin drying 15%
Energy use 10%
Duration 5%
Ease of use 5%

SPECIFICATION				WHICH? TEST PERFORMANCE												TEST SCORE
Model	Price	Annual energy cost	Capacity (kg)	Maximum spin speed (rpm)	Start/end delay	Child locks	Quick wash	Cottons wash	Synthetics wash	Rinsing efficiency	Spin dry	Energy use	Noise	Ease of use		
FREESTANDING																
SAMSUNG NF80F5ESU4W	£500	£32	8	1,400	✓	P	✓	★★★★★	★★★★★	★★★★	★★★★★	★★	★★	★★	80%	
MIELE W5780	£1,029	£27	7	1,400	✓	P	✓	★★★★★	★★★★★	★★★★	★★★★★	★★	★★	★★	79%	
ZANUSSI NZWF91283W	£330	£41	9	1,200	✓	P	✓	★★★★★	★★★★★	★★★★	★★★★	★★	★★	★★	78%	
LG F14958D5A	£799	£52	12	1,400	✓	P	✓	★★★★★	★★★★★	★★	★★★★★	★★	★★	★★	79%	
BOSCH NVAQ2B45NGB	£398	£33	8	1,400	✓	P	✓	★★★★	★★★★★	★★★★	★★★★★	★★	★★	★★	73%	
JOHN LEWIS JLNVM1413	£399	£32	8	1,400	✓	P	✓	★★★★	★★★★★	★★★★	★★★★★	★★	★★	★★	73%	
SIEMENS NN104V75HGB	£769	£33	8	1,400	✓		✓	★★★★	★★★★★	★★★★	★★★★★	★★	★★	★★	73%	
LG F12BBQ3A	£400	£35	7	1,200	✓	P	✓	★★★★	★★★★★	★★★★	★★★★★	★★	★★	★★	72%	
BOSCH NVA32750GB	£698	£36	9	1,600	✓	P	✓	★★★★	★★★★★	★★	★★★★★	★★	★★	★★	71%	
JOHN LEWIS JLNVM1605	£599	£38	9	1,600	✓	PD	✓	★★★★	★★★★	★★	★★★★★	★★	★★	★★	71%	
HOTPOINT NVAQF64IP	£330	£31	6	1,400	✓	P	✓	★★★★★	★★★★	★★	★★★★	★★	★★	★★	68%	
HOTPOINT AQTBL297E	£368	£31	11	1,200	✓	P	✓	★★★★	★★★★★	★★	★★★★	★★★★	★★★★	★★	67%	
INDESIT INSC325IECO	£219	£28	5	1,200	✓		✓	★★★★	★★★★★	★★	★★★★	★★	★★	★★	66%	
CANDY SC41672D1S	£280	£28	7	1,400	✓		✓	★★★★	★★★★★	★★	★★★★	★★★★	★★	★★	63%	
WHIRLPOOL WNDC 5440	£279	£32	9	1,400	✓	P	✓	★★★	★★★★★	★★	★★★★	★★★★	★★	★★	58%	
BEKO NMB914G2.W	£290	£31	9	1,400	✓	P	✓	★★	★	★★	★★★★	★★★★	★★	★★	44%	
SAMSUNG NF11Q4XAC	£949	£21	12	1,400	✓	P	✓	★	★	★★	★★★★	★★★★★	★★	★★	37%	
NEFF W5440X1GB	£725	£18	7	1,400	✓		✓	★	★	★★	★★★★	★★★★	★★	★★	36%	
ZANUSSI ZNG7140P	£310	£22	6	1,400	✓	D	✓	★	★★	★★★★	★★★★★	★★	★★	★★	34%	
SANDSTRÖM S814WNN13	£280	£19	8	1,400	✓		✓	★	★★★★	★	★★	★★★★	★★	★★	33%	
INTEGRATED																
MIELE H2810H	£1,359	£22	6	1,400	✓	P	✓	★★★★★	★★	★★★★	★★★★★	★★	★★	★★	73%	
HOTPOINT SHNMD742	£429	£28	7	1,400	✓		✓	★★★★★	★★★★	★★	★★★★	★★★★	★★	★★	64%	
AEGL614C0B1	£549	£26	7	1,400	✓	PD	✓	★★★	★★★★	★★★★	★★★★	★★	★★	★★	58%	
INDESIT INWE 127	£309	£30	7	1,200	✓		✓	★★★★	★★★★	★★	★★★★	★★	★★	★★	58%	

USING THE TABLE

four times a week, for a year.

synthetics during a 40°C wash.

A five-star machine can remove more than half of the water from

SCORE ignores price. Based on Cleaning performance

USING THE TABLE

four times a week, for a year.

synthetics during a 40°C wash.

Rinsing efficiency How much

A five-star machine can remove more than half of the water from

SCORE ignores price. Based on: Cleaning performance